ABSTRACT

A consumable insert (10) formed of material particles (14) contained within a sheath (12). The particles may be a melting point depressant that has a concentration that is greater in a center region (16) of the insert than in the surface region (18) of the insert, thereby facilitating complete melting of the insert during a transient liquid phase bonding process. Alternatively, the particles may be a low-ductility material, such as a superalloy or an MCrAlY alloy, contained within a high ductility sheath material formed into a ribbon shape, thereby allowing the low-ductility material to be delivered in ribbon form during a coating process.